United States Patent [19]

McGahee

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[45] **Mar. 11, 1975**

[54] **CONNECTOR COMBINED WITH FISHING FLOAT, LEADER, SINKER, OR LURE APPARATUS**

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[73] Assignee: **Loop A Line, Inc.,** Melbourne, Fla.

[22] Filed: **Nov. 26, 1973**

[21] Appl. No.: **419,175**

[52] **U.S. Cl.** **43/42.49,** 43/44.83

[51] **Int. Cl.** **A01k 85/00,** A01k 91/04

[58] **Field of Search** 43/42.49, 44.83

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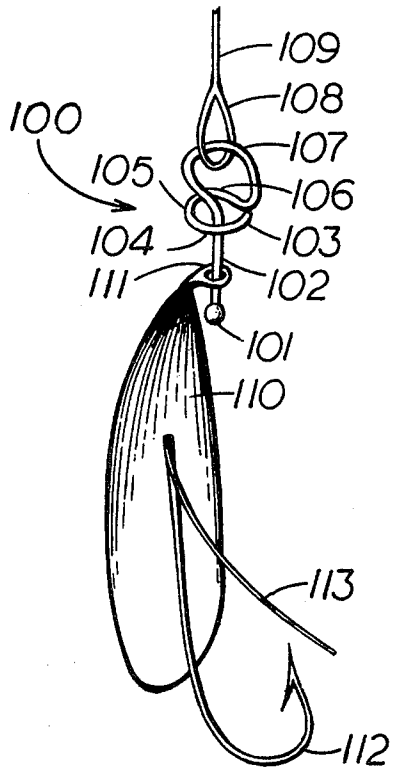
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Primary Examiner—Louis G. Mancene
Assistant Examiner—Daniel J. Leach
Attorney, Agent, or Firm—Warren E. Ray

[57] **ABSTRACT**

A connector, combined with a fishing hook, float, leader, sinker, or lure apparatus, having a vertical shaft with either a head on the lower end thereof or combined with fishing apparatus, the shaft having a vertical eye connected to a horizontal eye with a small gap or closed with brazing material whereby the bight of a fishing line may be attached or disengaged rapidly without the tieing or untieing of knots.

10 Claims, 15 Drawing Figures



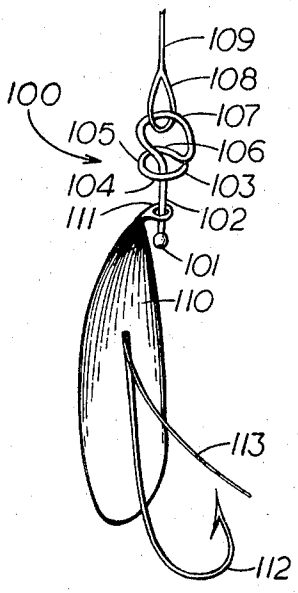


FIG. 1

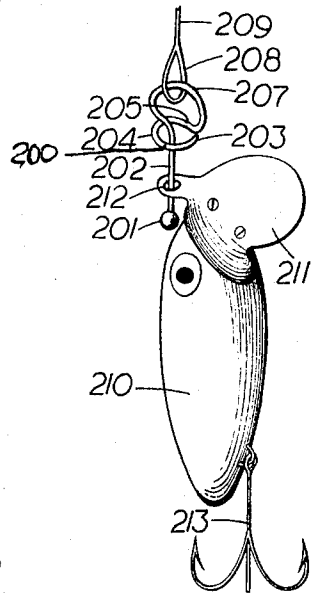


FIG. 2

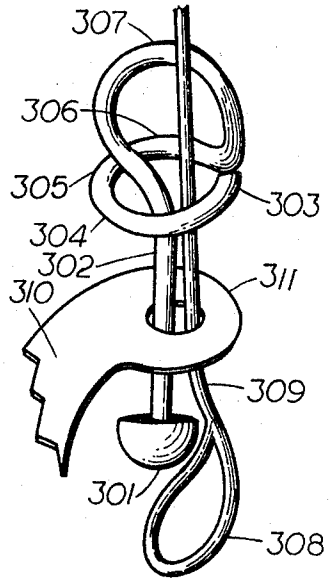


FIG. 3

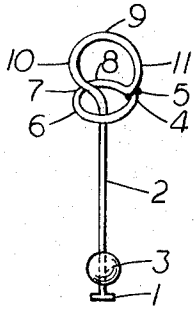


FIG. 4

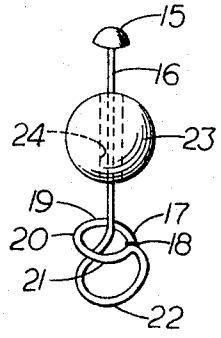


FIG. 5

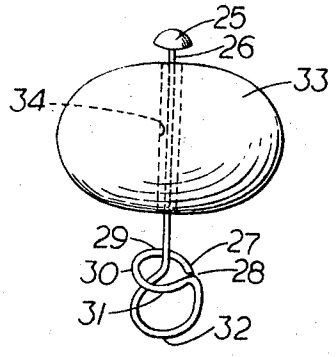


FIG. 6

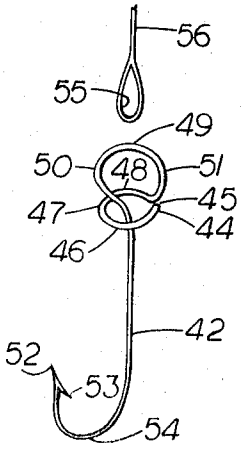


FIG. 7

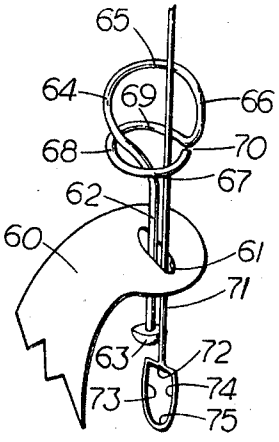


FIG. 8

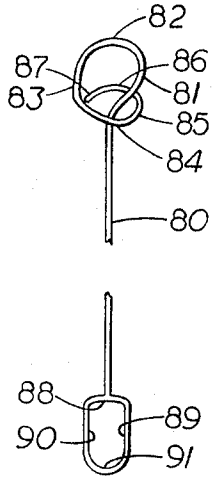


FIG. 9

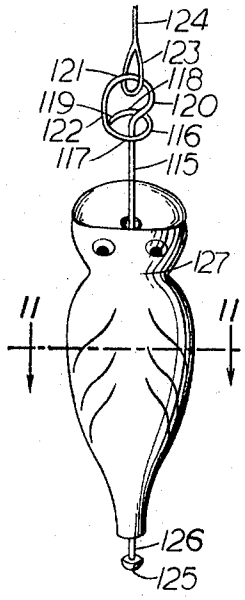


FIG. 10

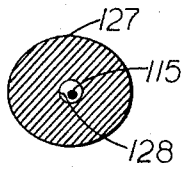


FIG. 11

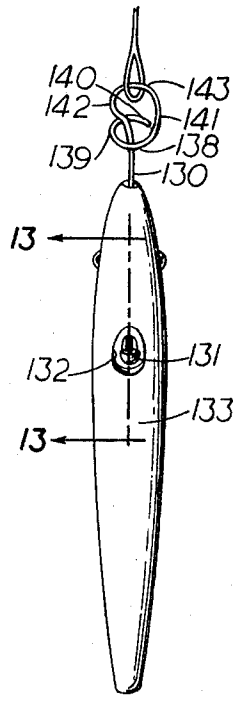


FIG. 12

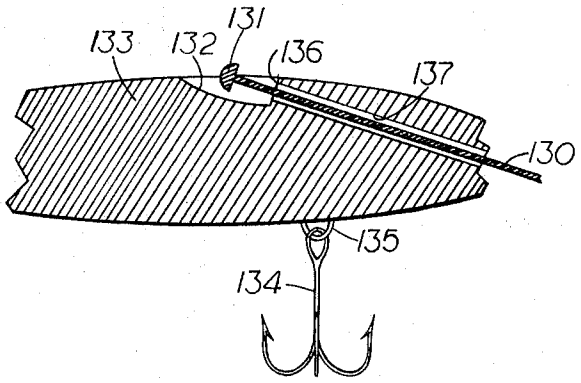


FIG. 13

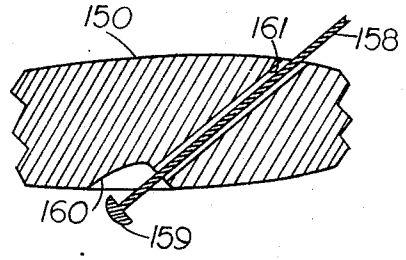


FIG. 15

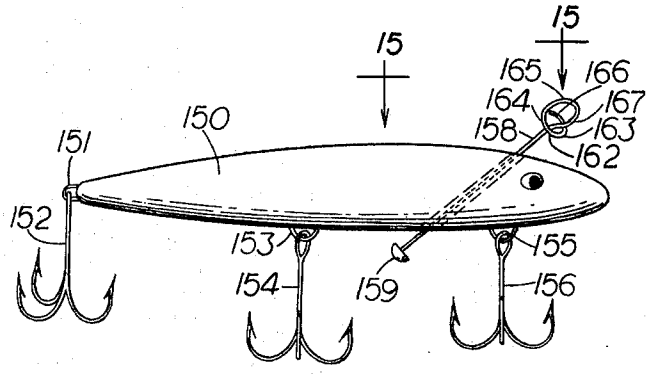


FIG. 14

CONNECTOR COMBINED WITH FISHING FLOAT, LEADER, SINKER, OR LURE APPARATUS

This invention relates to fishing equipment, and more particularly to a connector combined with fishing apparatus representing an improvement on my U.S. Pat. No. 3,754,347 granted on Aug. 28, 1973.

BRIEF SUMMARY OF THE INVENTION

The connector is provided in combination with diverse fishing implements whereby the bight of a fishing line may be attached or disengaged rapidly without the tieing or untieing of knots. A horizontal eye is connected to a vertical eye which is connected to a vertical shaft, the shaft having a head cooperating with a hole or slot in a fishing implement or wherein the shaft is combined directly with a fishing implement as a hook or leader.

The primary object of the invention is the provision of a novel connector combined with fishing apparatus whereby such apparatus may be exchanged quickly without the necessity of tieing or untieing knots in the fishing line.

Further objects and advantages of my invention will be apparent from the following detailed description taken in conjunction with the accompanying drawings in which:

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

FIG. 1 shows the connector with a head cooperating with a fishing spoon;

FIG. 2 is similar to FIG. 1 with the connector combined with a downplane lure;

FIG. 3 illustrates how the fishing line with bight is engaged or disengaged with fishing implements such as shown in FIGS. 1 and 2;

FIG. 4 depicts a connector with a modified head with bead;

FIG. 5 shows the connector combined with a fishing weight or sinker;

FIG. 6 illustrates the connector combined with a fishing float;

FIG. 7 shows the connector combined with a fishhook;

FIG. 8 is an enlarged view of the connector wherein the fishing implement is provided with a slot whereby a stiff leader with an elongated eye may be utilized;

FIG. 9 depicts a stiff leader having the connector at one end and an elongated eye at the other end;

FIG. 10 shows the connector with an elongated shaft passing longitudinally through a fishing lure;

FIG. 11 is cross sectional view of FIG. 10 taken on the line 11—11;

FIG. 12 is a top view of the connector combined with a fishing lure having a front pull;

FIG. 13 is a partial cross sectional view of FIG. 12 taken on the line 13—13;

FIG. 14 shows a side view of a connector combined with a fishing lure having a top pull; and

FIG. 15 is a partial cross sectional view of FIG. 14 taken on the line 15—15;

DETAILED DESCRIPTION

The configuration of the horizontal eye and the vertical eye of the connector is the same in all of the figures. The connector shaft may end in a head or be combined with a fishing implement as described with reference to

individual figures. Turning now to FIG. 1 the numeral 100 generally indicates the connector device having a vertical shaft 102 with a spherical head 101 on the lower end. A horizontal eye has end 103 leaving a gap between a back portion 106 of the eye and end 103 of front portion 104. A left portion 105 completes the horizontal eye which is substantially circular in shape. The numeral 107 designates a vertical eye also substantially circular in shape which is joined to both the horizontal eye and the vertical shaft. The loop 108 in fishing line 109 is shown in position after engagement in a manner which will be described in connection with FIG. 3. The fishing spoon 110 with hook 112 and antiweed member 113 is provided with an eye 111 through which passes the vertical shaft 102. The spherical head 101 is of sufficient diameter so that it will not pass through the spoon eye 111, but the diameter of spoon eye 111 is such that the loop 108 can be passed through eye 111 even though the vertical shaft 102 occupies some of the space.

FIG. 2 shows the connector device combined with a lure 210 having a treble hook 213 and a downplane plate 211 with a hole 212 passing vertical shaft 202 of the connector. The head 201 of shaft 202 is spherical or substantially spherical with a diameter greater than the hole 212 so that the connector is retained on the lure, but the hole 212 is such that the loop 208 of fishing line 209 can be passed through even though vertical shaft 202 takes up some of the space. The front portion 200 of the horizontal eye member has a left side 204 and an end 203 adjacent the back portion 205 of the horizontal eye member. The vertical eye member 207 is joined with the horizontal eye member and with the vertical shaft 202. It will be understood that the spherical head 201 or the spherical head 101 in FIG. 1 may be semispherical as shown at head 301 in FIG. 3.

FIG. 3 is a somewhat enlarged view of the connector cooperating with a fishing implement such as shown in FIGS. 1-2. In this figure 301 is a semispherical head on vertical shaft 302 which connects to vertical eye member 307 which in turn is connected to the back portion 306 of the horizontal eye member. The horizontal eye further includes a left portion 305, and a front portion 304 which has an end 303 leaving a small gap with respect to back portion 306. A portion of a fishing spoon is shown at 310 having an eye 311 through which eye the vertical shaft 302 passes. It will be understood that the eye 311 is somewhat exaggerated for purposes of explaining how the fishing line is attached. The fishing line 309 with loop 308 is passed adjacent the vertical shaft 302 inside the horizontal eye, through the eye 311, and the loop 308 is placed over the head 301. A pull on the line 309 will place the loop 308 in the position shown in FIGS. 1 and 2. It will be apparent that the line may be removed by reversing the process. It will be understood that fishing implements provided with the connector can be exchanged as desired without the tieing or untieing of knots in a minimum of time.

FIG. 4 is a somewhat enlarged connector with modification wherein the vertical shaft 2 is provided with a flattened head 1 retaining a spherical bead 3 on the shaft. It will be understood that this modification is applicable to other figures wherein the shaft is provided with a head. Between the end 4 of the front portion 6 of the horizontal eye member and the back portion 8 of the horizontal eye member is provided brazing or soldering material 5 filling the gap shown in prior fig-

ures. The vertical eye member has a top portion **9**, a left portion **10**, and a right portion **11** joined with brazing **5** to the horizontal eye member end **4** and to the back portion **8** of the horizontal eye member. The left portion **7** of the horizontal eye member is comparable to the same element in prior figures, e.g., to **105** in FIG. **1**. This arrangement permits added swivel action.

The connector is combined with a sinker or weight **23** in FIG. **5**. The sinker **23** is provided with a hole or bore **24** somewhat larger than necessary to pass the connector shaft **16** so as to provide space for the passage of a line with loop as shown in FIG. **3**. At one end the shaft **16** is provided with a head **15**, here shown as semispherical, it being understood that a flattened head as indicated in FIG. **4** or a spherical head as shown in FIG. **2** could be provided if desired. At the other end the connector comprises a vertical eye member **22** joined to the connector shaft **16** and a horizontal eye member including the end **17** of the back portion **19**, a left portion **20**, a front portion **21**, and brazing or soldering material **18** between the end **17** and front portion **21**.

A fishing float **33**, having an enlarged hole or bore **34** for passing a fishing line, is shown in FIG. **6**. A semispherical head **25** is integral with the connector shaft **26** that passes through the float **33**. A vertical eye member **32** is connected with the vertical shaft **26** and with a horizontal eye member having a front portion **31**, a left portion **30**, and a back portion **29** having an end **27**. THe space between the end **27** of the horizontal eye member and the front portion thereof is filled with a brazing or soldering material **28** as in FIGS. **4** and **5**, but it will be understood that a small gap could be left as in FIG. **1** for example.

FIG. **7** depicts the connector combined with a fishhook wherein **42** is the connector shaft and the shank of a fishhook having a point **52**, a barb **53**, and the usual curved portion **54**. The horizontal eye member has a front portion **46** with an end **44**, a small gap **45** between end **44** and back portion **48**, and a left portion **47** with the horizontal member being connected to the vertical eye member. The vertical eye member includes a top portion **49** and a right portion **51** joined with the back member **48** of the horizontal eye member. The loop **55** of fishing line **56** is passed adjacent vertical shaft **42** through the horizontal eye member, over the point of the fishhook, and a pull will place the loop in the position as in FIG. **1**. It will be apparent that a fisherman can change to hooks of different sizes as may be desired in a minimum of time.

A modification of a fishing implement may be made as in FIG. **8** whereby a stiff fishing leader with an elongated eye may be utilized. The numeral **60** indicates a portion of a fishing implement, for example those shown in FIGS. **1–2**, having an elongated slot **61** for purposes to be hereinafter set forth. The connector, enlarged somewhat to show how the stiff leader is attached but similar to the connectors heretofore described, has a vertical shank **62**, a head **63** on the lower end thereof, a vertical eye member with left portion **64**, a top portion **65**, and a right portion **66** that joins with the back portion **69** of the horizontal eye member. The horizontal eye member has a left portion **68**, and a front portion **67** with an end adjacent the back portion **69** with a small gap **70**. It will be understood that the gap may be filled with a brazing or soldering material as in FIGS. **4–5**. The fishing leader **71** is of the stiff variety, semiflexible to some extent, but unusable with say FIGS. **1–2**, with an elongated eye having an upper bend **72**, a left side member **73**, a right side member **74**, and a lower bend **75**. The loop or eye is passed through the horizontal eye, through the elongated slot **61** with flat side along the long side, and over the head **63**. A pull on the leader **71** will bring the eye back through the slot **61** and into a position in the vertical eye as shown in FIG. **1**. As with prior figures, the purpose is to provide apparatus whereby fishing implements may be rapidly attached and removed.

The leader **80** in FIG. **9** is a near inflexible line, i.e., of stiff wire, having an elongated eye with a right side member **89**, a left side member **90**, an upper bend **88**, and a lower bend **91** that cooperates with the device in FIG. **8**. At the end opposite the elongated eye the connector of this invention comprises a vertical eye with right portion **81**, an upper portion **82**, and a left portion **83** joined to a horizontal eye member with front portion **84**, a right portion **85**, and a back portion **86**. The back portion **86** has an end **87** adjacent left portion **83** of the vertical eye and front portion **84** of the horizontal eye. The flexible fishing line loop can be passed through the horizontal eye, over the elongated eye, and with a pull end up in the position shown in FIG. **1**.

FIG. **10** shows a slight modification of the connector for use on a popular lure, and FIG. **11** is a cross sectional view taken on the line **11—11** of FIG. **10**. The connector vertical shaft **115** is elongated with a lower portion **126** so as to pass longitudinally through the lure with a lower head **125**. As shown in FIG. **11** the lure **127** is provided with an oversized hole **128** whereby a loop **123** in fishing line **124** may be passed through the lure hole having the shaft **115** in a manner heretofore described. The loop **123** has a final position as shown in FIG. **10**. The connector is provided with a horizontal eye member having a right portion **116**, a back portion **118** with end **119**, and a front portion **117** joined with the left portion **122** of a vertical eye member. The vertical eye member further includes a right portion **120** joined to connector shaft **115** and to a top portion **121**.

The connector is slightly modified for use with a front pull fishing lure as shown in FIG. **12** with FIG. **13** being a partial cross sectional view of FIG. **12** taken on line **13—13**. The connector shaft **130** has a head **131**, the former passing through an enlarged bore or hole **137** in the lure **133** from the nose upwards at an angle, and the latter cooperating with a shoulder **136** in depression **132** in the lure body. As indicated in FIG. **13** the connector shaft **130** has sufficient length so that it can be retracted for passage of the loop of a fishing line through the horizontal eye and the hole **137** and thence over the head **131** as in prior figures. An eye **135** to receive a fishhook, as treble fishhook **134**, is shown as examplary of the one or more fishhooks that may be attached to the lure **133** as is conventional. The horizonatal eye member includes a front portion **138**, a left portion **139**, and a back portion **140**. The vertical eye member has a left portion **142** joined to shaft **130**, a top portion **143**, and a right portion **141** joined to **138**.

In FIG. **14** the connector is adapted to provide an up pull to lure **150** provided with back, middle, and front eyes **151, 153, 155** for treble fishhooks **152, 154,** and **156**. As better seen in FIG. **15**, a partial cross sectional view of FIG. **14** taken on line **15—15**, the elongated connector shaft **158** passes through an enlarged hole or bore **161** in the lure with a connector head **159** cooper-

ating with depression **160.** The connector shaft is joined with right portion **167** of a vertical eye member having an upper portion **165** which in turn is joined to the left portion **164** of a horizontal eye member, the latter having a front portion **162,** a back portion **166,** and a right portion **163.** When the connector is pushed downward the head **159** is exposed so that a fishing line loop can be passed through the horizontal eye member and the bore **161** and over the head **159** as in FIG. **12.**

In summary this invention provides a novel connector combined with a fishhook, float, leader, sinker, and diverse fishing lures whereby a fishing line loop may be rapidly connected or disconnected to change sizes or to change to different fishing implements without the necessity of tieing or untieing knots in the line.

While for purposes of description I have shown and described specific embodiments of my invention, it will be apparent that changes and modifications can be made therein without departing from the spirit of my invention or the scope of the appended claims.

I claim:

1. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, and fishing implement means adjacent to and connected to the other end of said shaft means including a fishing lure having a downplane plate, said downplane plate have an enlarged aperture, and wherein said shaft means passes through said downplane plate aperture and had a head on said other end of said shaft means whereby said shaft means is slidably connected to said downplane plate, said enlarged aperture providing sufficient space to permit the passage of a fishing line loop.

2. A fishing apparatus as set forth in claim **1** wherein said downplane plate aperture is an elongated slot.

3. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, and fishing implement means adjacent to and connected to the other end of said shaft means including a stiff leader integral with said other end of said shaft means, said stiff leader including elongated eye means on the distal end thereof.

4. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, and fishing implement means in the form of a lure having an enlarged bore from the nose thereof upward to the top of said lure, said shaft means passing through said fishing lure bore, and wherein said shaft means has a head on said other end of said shaft means whereby said shaft means is slidably connected to said lure, said enlarged bore providing sufficient space to permit the passage of a fishing line loop.

5. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, and fishing implement means in the form of a lure having an enlarged bore from the top to bottom of said lure, said shaft means passing through said lure bore, and wherein said shaft means has a head on said other end of said shaft means whereby said shaft means is slidably connected to said fishing lure, said enlarged bore providing sufficient space to permit the passage of a fishing line loop.

6. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, fishing implement lure means adjacent to and connected to the other end of said shaft means, said fishing implement lure means having an enlarged longitudinal bore, said shaft means passing through said fishing lure bore, said shaft means having a head on said other end of said shaft means whereby said shaft means is slidably connected to said fishing lure, and wherein said enlarged bore provides sufficient space to pass the loop of a fishing line.

7. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, and a fishing spoon with hook, said fishing spoon including an extension having an enlarged eye, and wherein said shaft means passes through said enlarged spoon eye and has a head on said other end of said shaft means whereby said shaft means is slidably connected to said fishing spoon, said fishing spoon enlarged eye providing sufficient space to permit the passage of a fishing line loop.

8. A fishing apparatus as set forth in claim **7** wherein said enlarged spoon eye is an elongated slot permitting the passage of said fishing line loop in the form of an elongated stiff leader loop.

9. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, fishing implement sinker means adjacent to and connected to the other end of said shaft means, said fishing implement sinker means having an enlarged bore, said shaft means passing through said fishing sinker bore, said shaft means having a head on said other end of said shaft means whereby said shaft means is slidably connected to said fishing sinker, and wherein said enlarged bore provides sufficient space to permit the passage of a fishing line loop.

10. A fishing apparatus comprising a shaft means, a substantially circular vertical eye member as an integral extension of one end of said shaft means, a substantially circular horizontal eye member connected to said vertical eye member and encircling said shaft means, fishing implement float means adjacent to and connected to the other end of said shaft means, said fishing implement float means having an enlarged bore, said shaft means passing through said fishing float bore, said shaft means having a head on said other end of said shaft means whereby said shaft means is slidably connected to said fishing float, and wherein said enlarged bore provides sufficient space to permit the passage of a fishing line loop.

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